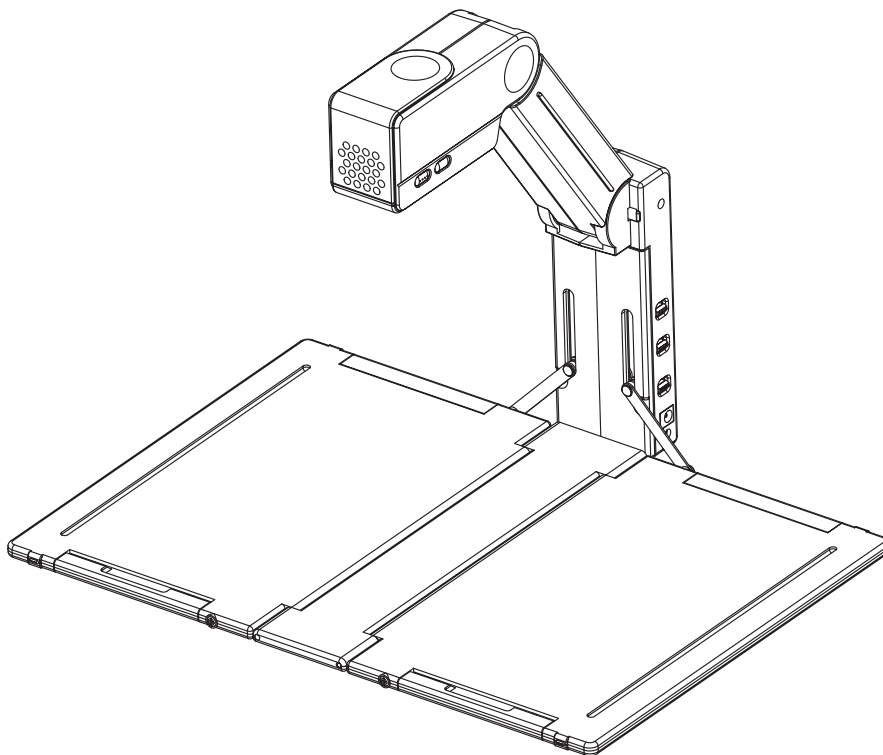


ELMO

VISUAL PRESENTER

EV-200

INSTRUCTION MANUAL



Please read this instruction manual carefully before using this Visual Presenter and keep it for future reference.

IMPORTANT SAFEGUARDS

■ **Read Instructions** – All the safety and operating instructions should be read before the appliance is operated.

■ **Retain Instructions** – The safety and operating instructions should be retained for future reference.

■ **Heed Warnings** – All warnings on the product and in the operating instructions should be adhered to.

■ **Follow Instructions** – All operating and use instructions should be followed.

■ **Cleaning** – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

■ **Attachments** – Do not use attachments not recommended by the product manufacturer as they may cause hazards.

■ **Water and Moisture** – Do not use this product near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.

■ **Accessories** – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table

recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

■ **Ventilation** – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

■ **Power Sources** – This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home consult your appliance dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

■ **Grounding or Polarization** – This product may be equipped with either a polarized 2-wire AC line plug (a plug having one blade wider than the other) or a 3-wire grounding type plug, a plug having a third (grounding) pin. The 2-wire polarized plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug. The 3-wire grounding type plug will fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.

■ **Power-Cord Protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

■ **Lightning** – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

■ **Overloading** – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

■ A product and cart combination should be moved with care.

Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.



■ **Object and Liquid Entry** – Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

■ **Servicing** – Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

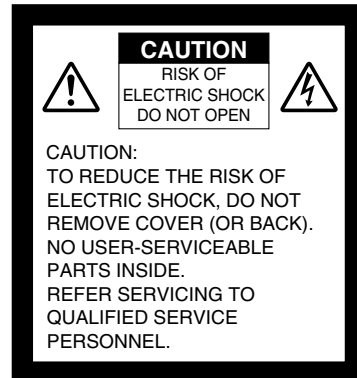
■ **Damage Requiring Service** – Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- If the product has been dropped or damaged in any way.
- When the product exhibits a distinct change in performance - this indicates a need for service.

■ **Replacement Parts** – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

■ **Safety Check** – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

■ **Heat** – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.





SA 1965

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



SA 1966

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**WARNING:
TO REDUCE THE RISK
OF FIRE OR ELECTRIC
SHOCK, DO NOT
EXPOSE THIS
PRODUCT TO RAIN OR
MOISTURE.**

**THIS IS A CLASS A
PRODUCT.
IN A DOMESTIC
ENVIRONMENT THIS
PRODUCT MAY CAUSE
RADIO
INTERFERENCE IN
WHICH CASE THE USER
MAY BE REQUIRED TO
TAKE ADEQUATE
MEASURES.**

INFORMATION

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

USER-INSTALLER CAUTION:

Your authority to operate this FCC verified equipment could be voided if you make changes or modifications not expressly approved by the party responsible for compliance to Part 15 of the FCC rules.

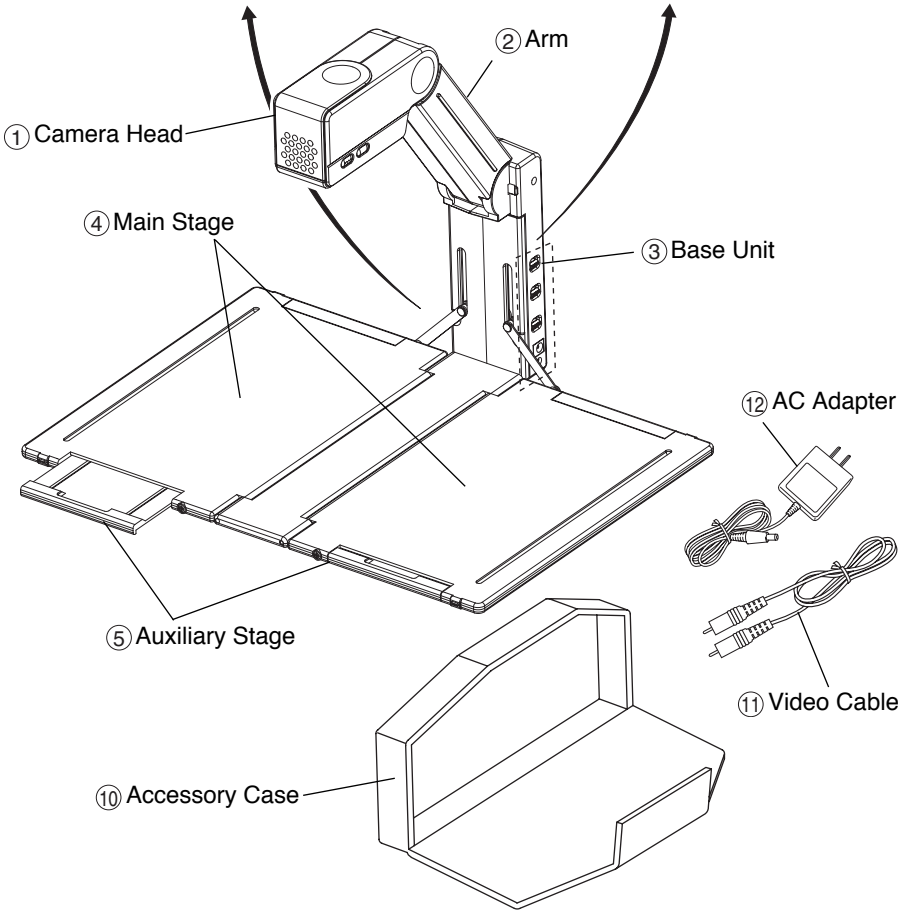
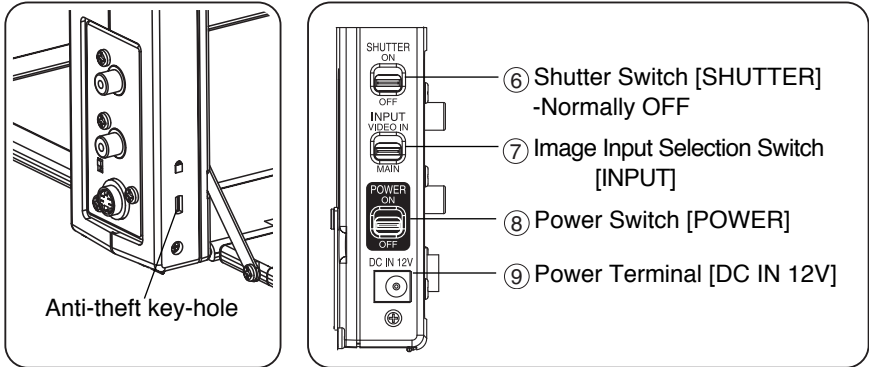
BEFORE YOU USE

- Use the Visual Presenter under the rated electrical conditions.
- Do not leave the Presenter under direct sunlight or by heaters, or the Presenter may be discolored, deformed, or damaged.
- Do not place the Presenter in any humid, dusty, windy or vibrating location. Use the Presenter in the following environmental conditions:
Temperature: 0°C~40°C (32°F~104°F)
Humidity: 30%~85% (No condensation)
- Use a soft, dry cloth for cleaning. Do not use any volatile solvent, such as thinner or benzine.
- Do not directly point the camera lens into the sun, or the camera may be damaged.

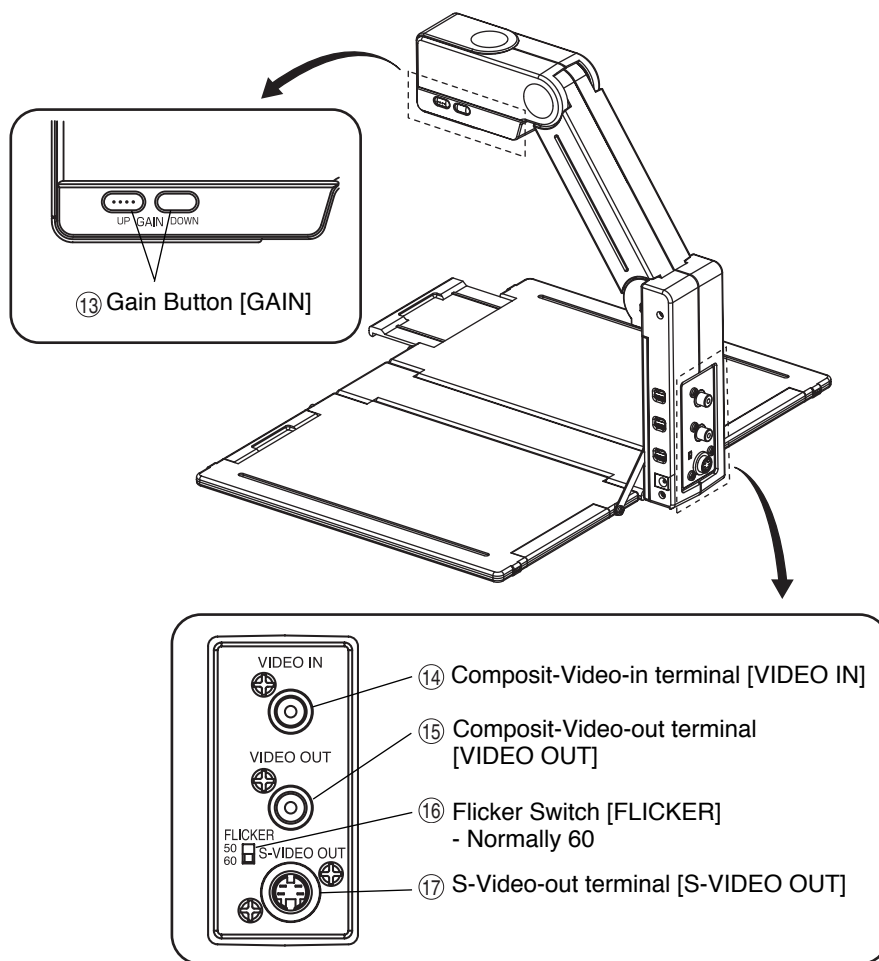
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1. PART NAMES AND FUNCTIONS



No.	Name	Function
①	Camera Head	Moving up/down the camera head can change the size of an object in display on the monitor screen smoothly.
②	Arm	A link part for moving the camera head horizontally.
③	Base Unit	A base part of the Presenter.
④	Main Stage	A stage for placing an object thereon.
⑤	Auxiliary Stage	Use this stage, if necessary, according to the object size.
⑥	Shutter Switch [SHUTTER]	Shutter ON/OFF switch. In normal use, this switch is set at OFF. If the image is too bright after adjusting the gain, turn the switch ON. Note: - If the shutter is turned ON when the brightness of the image is suitable, noise may appear in the image.
⑦	Image Input Selection Switch [INPUT]	To switch the image output from the Composit-Video-out terminal [VIDEO OUT]. [VIDEO IN] . . Image via the Composit-Video-in terminal [VIDEO INPUT] [MAIN] Image via the main camera Note: - The image output from S-video-out terminal [S -VIDEO OUT] is not switched.
⑧	Power Switch [POWER]	Power ON/OFF switch.
⑨	Power Terminal [DC IN 12V]	The DC jack of the AC adaptor is inserted into this terminal (12VDC).
⑩	Accessory Case	A case for housing the AC adaptor and video cable exclusively. When the Presenter is stored, house this case inside the stage.
⑪	Video Cable	To connect the Presenter to the monitor TV.
⑫	AC Adapter	To connect the Presenter to an outlet (120VAC).



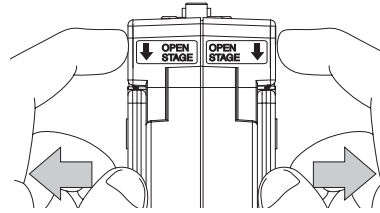
No.	Name	Function
⑬	Gain Button [GAIN]	<p>To adjust the image brightness by manipulating the gain button [UP]/ [DOWN].</p> <p>Note: - The gain setting is kept after turning the power supply OFF.</p>
⑭	Composit-Video-in Terminal [VIDEO INPUT]	<p>To connect other image output unit. The image is output from the Composit-Video-out terminal [VIDEO OUTPUT] when the image input selection switch [INPUT] is set accordingly.</p>
⑮	Composit-Video-out Terminal [VIDEO OUTPUT]	<p>To output the image to the monitor TV in connection to this terminal.</p>
⑯	Flicker Switch [FLICKER]	<p>To set the shutter time. In an areawhere power frequency is 50Hz, using the unit with the flicker switch set to [60] may cause flickering due to illumination of AC power discharge tube, such as a fluorescent or a mercury lamp.</p> <p>Using the unit with the flicker switch set to [50] may reduce the flickering.</p> <p>This switch is factory-set to 60Hz.</p>
⑰	S-Video-out terminal [S-VIDEO OUT]	<p>To output the image to the monitor TV in connection to this terminal.</p> <p>Note: - The image output is not switched by the image input selection switch [INPUT].</p>

2. SETTING UP AND STORING

2-1 SETTING UP

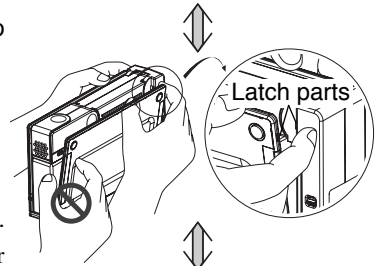
- ❶ Gently release the clipped area (as marked with arrow) of the right and left stages as illustrated.

Note: - It may be damaged by unlatching the stages putting hands on other position not shown by arrows.
 - When the accessory case is housed inside, be careful not to drop it.



- ❷ Connect the Composit-Video-out terminal [VIDEO OUTPUT] of the Presenter to the monitor TV with the Video cable (supplied).

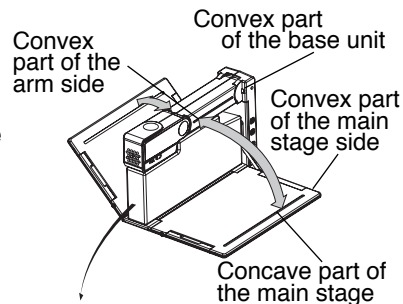
Note: - Before starting connection, turn OFF the power supply to each unit.



- ❸ Connect the AC adaptor, and turn the power switch [POWER] to ON.

Instruction for location:

- Please note that the image may be affected by unsightly shadows caused from other lights in the room or from the outside. This effect can usually be eliminated or reduced by repositioning the EV-200.

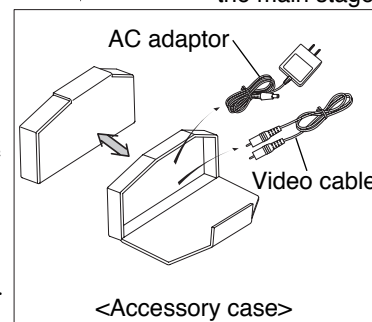


2-2 STORING

- ❶ Make sure that the power switch [POWER] is OFF, and then remove all cords connected to the Presenter.
- ❷ Move the camera head to be in line with the arm horizontally.
- ❸ House the auxiliary stage inside the main stage, and then fold the main stage. At this time, house the accessory case inside the stage.

Note: - Confirm that the accessory case is closed firmly before housing.

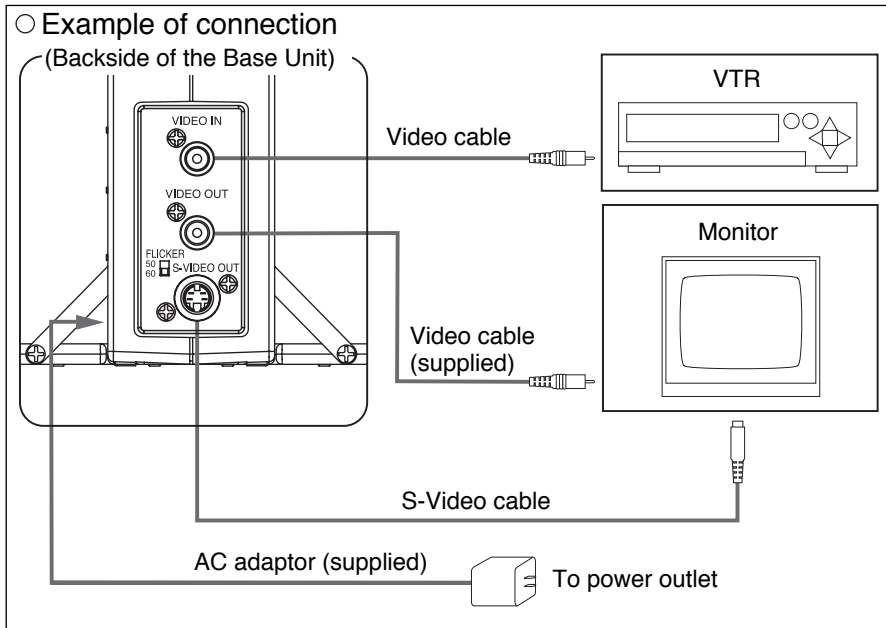
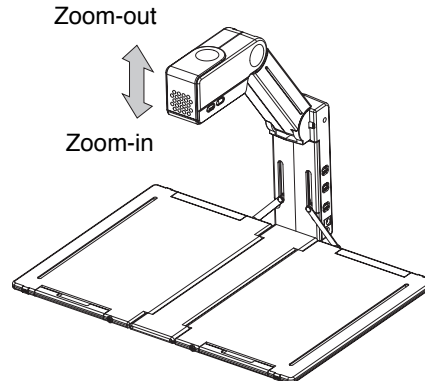
- ❹ Make sure that all movable parts are put back to storing position accordingly.



2-3 ZOOMING

By moving up/down the camera head, the object in display on the monitor screen can be zoomed-in or zoomed-out.

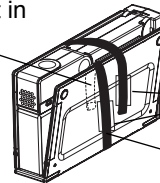
In zoom operation by moving up/down the camera head, focus adjustment is not required (FOCUSFREE).



○ Belt

The supplied belt is for preventing the stages from opening unexpectedly. Have it around the presenter folded as shown below.

Pinch the longer end of the belt in the inner part



Unite a piece of Velcro part

Belt

3. TROUBLESHOOTING HINTS

Symptom	Checkpoint
No image is on the monitor or project.	<ul style="list-style-type: none"> • Is the video cable connected properly? • Is the AC adapter inserted correctly? • Is the DC jack inserted firmly in the power terminal [DC IN 12V] of the Presenter? • Is the power switch [POWER] ON? • Is the image-in selection switch [INPUT] set at [VIDEO IN]?
The image flickers.	<ul style="list-style-type: none"> • The light from the discharge tube (50Hz) does not come to the screen. This trouble may be reduced by setting the flicker switch to [50]. (Refer to p.10)
Image is too bright.	<ul style="list-style-type: none"> • Adjust the brightness of the screen by the gain button [DOWN] . If the screen looks still dark, turn the shutter switch ON.
Image is too dark.	<ul style="list-style-type: none"> • Adjust the brightness of the screen by the gain button [UP].
The image of printed matter is striped.	<ul style="list-style-type: none"> • Is this caused by the interference between the dots of the printed matter and the scanning line of the TV?

If the trouble still remains after checking the above, consult your dealer or an authorized ELMO service center.

4. SPECIFICATIONS

■ General

Power voltage	12VDC
Power consumption	2VA
Outside dimensions	<Unfolded> 361mm(W)x285mm(D)x161-284mm(H) (14.2in.(W)x11.1in.(D)x6.3-11.2in.(H))
	<Folded> 59mm(W)x285mm(D)x161mm(H) (2.3in.(W)x11.1in.(D)x6.3in.(H))
Mass	1.5kg (3.3lbs)

■ Optical

Lens	F: 5.8, f= 3mm
Shooting area	<Max.> 364mmx271mm (14.3in.x10.7in.) <Min.> 179mmx135mm (7.1in.x5.3in.)

■ Camera

Image pick-up element	1/3" Interline-transfer CCD
Total picture elements	811(H) x 508(V) (approx. 410,000 pixels)
Effective picture element	768(H) x 494(V)
Resolution	More than 470 TV lines (Y signal with horizontal) More than 350 TV lines (Vertical)
S/N ratio	48dB
Television system	NTSC compatible
White balance	Full auto
Shutter	Provided (ON (1/250sec) /OFF (1/60sec) selection switch)
Flicker	Provided (50/60 selection switch)
Gain adjustment	Provided (UP/DOWN pushbutton switch) (30dB 32steps)
Ext. input selection	Provided (Main camera/Ext. selection switch)
Ext. input terminal	Composite-video input (RCA pin jack/75Ω unbalanced) 1pc
Output terminal	Composite-video output (RCA pin jack/75Ω unbalanced) 1pc S-video output (Mini Din 4P connector/75Ω unbalanced) 1pc

■ Supplied accessories

Accessory case	1pc
Video cable	1pc
AC adaptor	1pc
Instruction manual	1pc
Quick reference	1pc
Warranty card	1pc
Belt	1pc

These specifications are subject to change without prior notice.

Trademark Acknowledgements

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FOCUSFREE is a trademark of ELMO CO., Ltd.

WARNING:

- Unauthorized recording of copyrighted slide films, materials, photographs, etc. may infringe on the rights of copyright owners and be contrary to copyright laws.



ELMO CO., LTD.

6-14, Meizen-cho, Mizuho-ku,
Nagoya, 467-8567, Japan

OVERSEAS SUBSIDIARY COMPANIES

- U.S.A.** **ELMO Mfg. Corp.**
1478 Old Country Road, Plainview, NY 11803-5034
Tel:(516)501-1400 Fax:(516)501-0429
E-mail:elmo@elmousa.com
web:http://www.elmousa.com/
- Canada** **ELMO Canada Mfg. Corp.**
44 West Drive, Brampton, Ontario L6T 3T6
Tel:(905)453-7880 Fax:(905)453-2391
E-mail:info@elmocanada.com
web:http://www.elmocanada.com/
- Germany** **ELMO (Europe) G.m.b.H**
Neanderstr. 18, 40233 Düsseldorf
Tel:(0211)376051 Fax:(0211)376630
E-mail:elmoeurope@AOL.com
web:http://www.elmo.de/

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